

SAFETY DATA SHEET

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Identification

Product Name: Microfire Investment Powder

Product Number: 2021, 2021-25, 2107, 2109, 2115, 2021-50, 2021-100, 2021-50P, 2107-50, 2107-150, 2101-50, 2120IV

Chemical Name: Silicon Dioxide

Chemical Family: Silica Quartz

CAS Number: Blend

Company Identification

Nobilium, Div. of CMP Industries LLC

413 North Pearl St

Albany, NY 12207-1311 USA

(518)-434-3147 (For product information)

(800)-424-9300 (For emergencies)

1-800-424-9300 or 1-202-483-7616 (CHEMTREC)

2. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW:

WARNING: May cause eye irritation. Inhalation of dust may cause mucous membrane and respiratory irritation. Prolonged overexposure to respirable crystalline silica may cause lung disease(silicosis) and increase the risk of lung cancer. Risk of cancer depends on duration and level of exposure.

GHS Classification:

Eye Irritation 2A

Target Organ Systemic Toxicity - Repeated Exposure, Category 2

GHS Hazard Symbols:

Irritant, Health Hazard



GHS Hazard Statements:

H319 - Causes serious eye irritation.

H373-May cause damage to organs through prolonged or repeated exposure.

GHS Precautionary Statements:

P260 - Do not breathe dust/fume/gas/mist/vapors/spray.



P280 - Wear protective gloves/protective clothing/eye protection/face protection.

EYE:

Causes eye irritation.

SKIN:

May cause skin irritation.

INHALATION:

Causes respiratory tract irritation.

INGESTION:

Ingestion is not considered a potential route of exposure.

SIGNS AND SYMPTOMS OF EXPOSURE:

Undue breathlessness, cough, sputum production, pain in the chest area.

CHRONIC EFFECTS:

Prolonged exposure may cause delayed injury to the pulmonary system.

REPRODUCTIVE HAZARDS:

None.

CARCINOGENICITY INFORMATION:

Crystalline silica quartz is listed as 'Carcinogenic to Humans' Group 1 by IARC and 'Known to be a Human Carcinogen' by NTP.

TARGET ORGAN:

Prolonged or repeated exposure may cause lung injury.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE:

Individuals with pulmonary problems will be more susceptible to effects due to exposure.

3. COMPOSITION/INFORMATION ON INGREDIENTS

COMPONENT LISTING:

Chemical Name	Amount	CAS Number
CRYSTALLINE SILICA QUARTZ	35.0 - 55.0 %	14808-60-7
CRISTOBALITE	20.0 - 40.0 %	14464-46-1
MAGNESIUM OXIDE	10.0 - 20.0 %	1309-48-4

This product contains hazardous materials as defined by the OSHA Hazard Communication Standard 29 CFR 1910.1200.

As defined under Sara 311 and 312, this product contains materials that are acute, chronic hazards.

4. FIRST AID MEASURES

EYE CONTACT FIRST AID:

In case of contact, immediately flush eyes with plenty of water, lifting upper and lower lids, for at least 15 minutes. Get medical attention if irritation persists.



SKIN CONTACT FIRST AID:

Wash skin with soap and water.

INHALATION FIRST AID:

If inhaled, remove to fresh air. If breathing is difficult, have qualified personnel administer oxygen. Contact a physician.

INGESTION FIRST AID:

Large amounts may cause gastrointestinal discomfort. If swallowed, drink 1 or 2 glasses of water to dilute. Never give anything by mouth to an unconscious or convulsing person. Get medical attention.

5. FIRE FIGHTING MEASURES

FLAMMABLE PROPERTIES

COC Flash Point: N/A

Autoignition Temperature: N/A

FLAMMABLE LIMITS IN AIR

LEL: N/A

UEL: N/A

FLAMMABLE PROPERTIES:

Not Flammable under normal conditions.

EXTINGUISHING MEDIA:

Non-flammable.

FIRE & EXPLOSION HAZARDS:

None.

FIRE FIGHTING INSTRUCTIONS:

None.

COMBUSTION PRODUCTS:

None.

6. ACCIDENTAL RELEASE MEASURES

LARGE SPILLS PROCEDURE:

Vacuum spilled material or collect in the most convenient dustless safe manner.

Wear respirator and protective clothing as appropriate.

SMALL SPILLS PROCEDURE:

Same as large spill.

7. HANDLING AND STORAGE

HANDLING (PERSONNEL):



Avoid contact with the eyes. Do not breathe dust. Wear protective clothing and equipment as described in Section 8. Use with adequate ventilation and proper dust collection methods to keep exposure level below occupational exposure limits. Wash thoroughly with soap and water after handling.

HANDLING (PHYSICAL ASPECTS):

Keep containers closed when not in use.

STORAGE PRECAUTIONS:

Store in a dry and well ventilated place away from incompatible materials. Protect from physical damage.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

EYE / FACE PROTECTION REQUIREMENTS:

Use safety glasses or chemical splash goggles.

SKIN PROTECTION REQUIREMENTS:

Wear work gloves.

RESPIRATORY PROTECTION REQUIREMENTS:

If exposure exceeds exposure limits, use NIOSH approved respirator.

MISCELLANEOUS:

Use general or local ventilation.

EXPOSURE GUIDELINES:

Crystalline Silica Quartz

Recommended Exposure Limit: 0.05 mg/m³

OSHA PEL: 10 /% SiO₂ +2 TWA (respirable dust) mg/m³

OSHA TWA: 30 /% SiO₂ +2 TWA (total dust) mg/m³

ACGIH TWA: 0.025 mg/m³

CRISTOBALITE

OSHA PEL: 0.5(10/(SiO₂ +2)) Respirable Dust mg/m³

OSHA TWA: 0.5(30/%SiO₂ + 2)Total Dust mg/m³

ACGIH TWA: 0.025 (Respirable Dust) mg/m³

MAGNESIUM OXIDE

OSHA PEL: 15 mg/m³

ACGIH TWA: 10 mg/m³

9. PHYSICAL AND CHEMICAL PROPERTIES

FORM:	Powder
ODOR:	No odor
BOILING POINT:	4000 F
SPECIFIC GRAVITY:	2.65 (Water = 1)

10. STABILITY AND REACTIVITY

STABILITY:

Stable.



POLYMERIZATION:

Product will not undergo polymerization.

INCOMPATIBILITY WITH OTHER MATERIALS:

Avoid contact with hydrofluoric acid.

11. TOXICOLOGICAL INFORMATION

EYE EFFECTS:

Contact may cause mechanical irritation and possible injury.

SKIN EFFECTS:

No adverse effects are expected.

ACUTE ORAL EFFECTS:

No adverse effects expected for normal, incidental ingestion. Large amounts may cause gastrointestinal irritation.

ACUTE INHALATION EFFECTS:

Inhalation of dust may cause irritation to the nose, throat, and upper respiratory tract with coughing and shortness of breath.

CHRONIC EFFECTS /:

Excessive inhalation of respirable crystalline silica dust may cause a progressive, disabling and sometimes fatal lung disease call silicosis. Symptoms include cough, shortness of breath, wheezing, non-specific chest illness and reduced pulmonary function.

Crystalline Silica Quartz

Test Code: Oral LD50
Species: Rat
Results: >22,500 mg/kg

MAGNESIUM OXIDE

Test Code: TCLO
Species: Human
Results: 400 mg/kg

Crystalline Silica (Quartz)

Test Code: Oral LD50
Description: >22,500 mg/kg
Species: Rat

12. ECOLOGICAL INFORMATION

Crystalline Silica Quartz

Test Code: LC50
Description: 72 hr
Species: Carp
Results: >10,000 mg/L



13. DISPOSAL CONSIDERATIONS

WASTE DISPOSAL:

Dispose of waste material in accordance with all local, state/provincial, and national requirements.

14. TRANSPORT INFORMATION

PRODUCT LABEL:	Microfire Investment Powder
D.O.T. SHIPPING NAME:	Silica sands - nonflammable solid.
TECHNICAL SHIPPING NAME:	N/A
D.O.T. HAZARD CLASS:	N/A
UN NUMBER:	N/A

15. REGULATORY INFORMATION

REGULATORY LISTS SEARCHED:

01 = SARA 313	02 = CA Proposition 65
03 = SARA 302/304	04 = CERCLA 302.4
05 = ACGIH TWA	06 = ACGIH STEL
07 = ACGIH CALC TLV	08 = OSHA PEL
10 = OSHA CEILING	

REGULATORY DISCLOSURES:

California Proposition 65: This product contains the following substances known to the State of California to cause cancer: Crystalline Silica <80%.

EEC Symbols and Indications of Danger:

Harmful (Xn), Irritant (Xi)



R-Phrases:

R36/38 - Irritating to eyes and skin.
R37 - Irritating to respiratory system.
R20 - Harmful by inhalation.
R40/20 - Harmful: Possible risk of irreversible effects through inhalation.

S-Phrases:

S3/9 - Keep in a cool, well-ventilated place.
S22 - Do not breathe dust.
S38 - In case of insufficient ventilation, wear suitable respiratory equipment.

Canadian Disclosure List

Crystalline Silica Quartz (14808-60-7)
CRISTOBALITE (14464-46-1)
MAGNESIUM OXIDE (1309-48-4)



SARA Title III - Section 313

Microfire Investment Powder (BLEND) --
Crystalline Silica Quartz (14808-60-7) --

RCRA Hazardous Substances

Microfire Investment Powder (BLEND) --

CA Proposition 65

Crystalline Silica Quartz (14808-60-7)
CRISTOBALITE (14464-46-1)

16. OTHER INFORMATION

PREPARED BY: John Nicpon
APPROVED BY: John Nicpon
TITLE: Quality Manager
APPROVAL DATE: March 16, 2018
SUPERCEDES DATE: March 9, 2018
RTN NUMBER: 00000227 (Official Copy)

ABBREVIATIONS USED IN THIS MSDS:

TLV - THRESHOLD LIMIT VALUE	TWA - Time Weighted Average
STEL - SHORT TERM EXPOSURE LIMIT	TPQ - Threshold Planning Quantity
RQ - REPORTABLE QUANTITY	PEL - Permissible Exposure Limit
C - CEILING LIMIT	CAS - Chemical Abstract Service Number
NDA - NO DATA AVAILABLE	N/A - Not Applicable or Not Available

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END OF SAFETY DATA SHEET

